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NORTHERN MEXICAN SPECIES OF *SCHRANKIA* (MIMOSACEAE) TRANSFERRED TO *MIMOSA*

Billie L. Turner

Department of Botany, University of Texas, Austin, Texas 78713 U.S.A.

ABSTRACT

Three species of *Schrankia* from north-central México are transferred to *Mimosa*, following Barneby's (1992) submergence of the former into the latter: **Mimosa potosina** (Britt. & Rose) B.L. Turner, *comb. nov.*, **M. paucijuga** (Britt. & Rose) B.L. Turner, *comb. nov.*, **M. subinermis** (S. Wats.) B.L. Turner, *comb. nov.* [including *Leptoglottis nelsonii* Britt. & Rose = *Mimosa quadrivalvis* L. var. *nelsonii* (Britt. & Rose) Barneby]. Along with the previously transferred *Mimosa occidentalis* and *M. latidens*, this brings to five the number of species recognized from northern México that were previously placed in *Leptoglottis* or *Schrankia*. All of these were treated by Barneby as varietal taxa within his highly variable concept of the widespread *M. quadrivalvis*, a species of tropical and subtropical America. The taxa concerned are briefly discussed, keyed, and distributional maps are provided.

KEY WORDS: Mimosaceae, *Mimosa*, *Schrankia*, México

In a previous paper (Turner 1994), the Texas species of *Schrankia* were treated as belonging to *Mimosa*, following Barneby's (1992) submergence of the former into the latter. Unfortunately Barneby treated all of the temperate species of this complex as belonging to the widespread tropical or subtropical species *M. quadrivalvis* L., a position which I cannot accept (cf. discussions in Isely 1971, 1973; and Turner 1994).

Only five Mexican taxa appear to belong to the more temperate elements of the "*Schrankia*-complex." Two of these, *Mimosa potosina* (Britton & Rose) B.L. Turner and *M. subinermis* (S. Wats.) B.L. Turner are endemic to north-central México, while *M. latidens* (Small) B.L. Turner and *M. occidentalis* (Wooton & Standley) B.L. Turner extend into the border regions of northern México from much wider distributions to the north.

KEY TO THE TEMPERATE *MIMOSA* ["*SCHRANKIA*-COMPLEX"] OF NORTHERN MEXICO

1. Leaflets to some extent with visible reticulate, often raised, veins. ..... *M. paucijuga*

1. Leaflets with smooth surfaces, raised reticulate veins not evident. ... (2)

2. Larger leaves with mostly 4-8 pairs of pinnae; Chihuahua. ..... *M. occidentalis*

2. Larger leaves with mostly (1-)2-3 pairs of pinnae. ..... (3)

3. Petiole of larger leaves 2.5-3.5 times as long as the rachis; pinnae 2 cm long or less; Gulf coastal region of northern Tamaulipas in mostly sandy or sandy-loam soils. ..... *M. latidens*

3. Petiole of larger leaves mostly 1.5-2.5 times as long as the rachis; pinnae 1 cm long or more; calcareous soils of interior regions. ..... (4)

4. Leaflets with mostly acute apices; pods mostly 6-8 cm long; leaves with mostly 3-4 pairs of pinnae. ..... *M. subinermis*

4. Leaflets with mostly obtuse or rounded apices; pods mostly 3-5 cm long; leaves with mostly 1-2(-3) pairs of pinnae. ..... *M. potosina*

MIMOSA LATIDENS (Small) B.L. Turner, Phytologia 76:414. 1994. BASIONYM: *Morongia latidens* Small. *Leptoglottis latidens* (Small) Britt. & Rose. *Mimosa quadrivalvis* L. var. *latidens* (Small) Barneby. *Schrankia latidens* (Small) K. Schumann

Turner (1994) has discussed the biological status of this mostly Texas taxon, populational dregs of which extend into the coastal regions of northeastern México (Figure 2). Barneby (1992) included the Mexican *Leptoglottis potosina* as questionably synonymous with this taxon but I treat the species as distinct.

MIMOSA OCCIDENTALIS (Wooton & Standley) B.L. Turner, Phytologia 76:417. 1994. *Leptoglottis occidentalis* (Wooton & Standley) Britton & Rose. *Morongia occidentalis* Wooton & Standley. *Schrankia occidentalis* (Wooton & Standley) Standley. *Schrankia quadrivalvis* L. var. *occidentalis* (Wooton & Standley) Barneby.

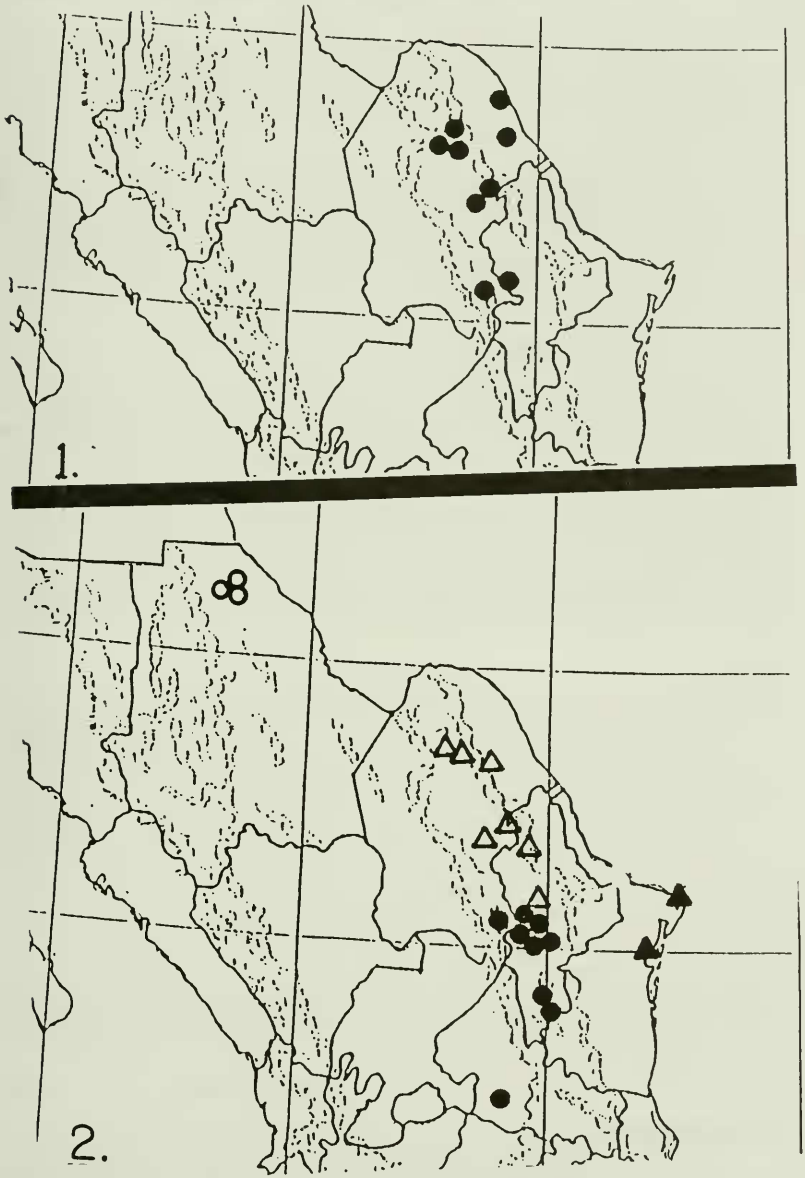

Figure 1 (above). Geographical distribution of *Mimosa paucijuga* and *M. subinermis*.

Figure 2 (below). Geographical distribution of *Mimosa latidens*, *M. occidentalis*, and *M. potosina*.

The biological status of this very distinctive widespread taxon is discussed in more detail by Turner (1994). In México the species is known only from a small region of dune sands south of Cd. Juárez, Chihuahua (Figure 2).

MIMOSA PAUCIJUGA (Britton & Rose) B.L. Turner, *comb. nov.* BASIONYM: *Leptoglottis paucijuga* Britton & Rose, *N. Amer. Fl.* 23:139. 1938. TYPE: MEXICO. Nuevo León: Monterrey, w/o date, *Eaton & Edwards s.n.* (HOLOTYPE: NY!). *Mimosa quadrivalvis* L. var. *paucijuga* (Britton & Rose) Barneby.

Leptoglottis regiomontanus Britton & Rose.

Barneby (1992) recognized the validity of this taxon, although it was never formally positioned in *Schrankia.* He felt that it "duplicates var. *latidens* in everything but prominulous dorsal venation of the leaflets." *Mimosa paucijuga* is also a taxon of calcareous soils having generally larger leaves and larger flowering heads than occurs in *M. latidens*, the latter occurring in silicaceous soils. The distribution of the two taxa are also disparate (Figures 1, 2). The relationships of *M. paucijuga* are probably closest to *M. nuttallii*, a largely calciphilic element also with prominulous dorsal venation of its leaflets occurring in the grassland regions of the southcentral U.S.A.

MIMOSA POTOSINA (Britton & Rose) B.L. Turner, *comb. nov.* BASIONYM: *Leptoglottis potosina* Britton & Rose, *N. Amer. Fl.* 23:143. 1928. TYPE: MEXICO. San Luis Potosí: Minas de San Rafael, May 1911, *Purpus 5177* (HOLOTYPE: US; Isotype: NY!).

This largely calciphilic taxon is closely related to the silicaceous *Mimosa latidens* and was treated as synonymous with the latter (as *M. quadrivalvis* var. *latidens*) by Barneby (1992). *Mimosa potosina* is fairly well-collected in north-central México where it mostly occurs in montane situations and does not appear to intergrade with the strictly low-lands *M. latidens*, nor do their distributions overlap or approach (Figure 2). Further, *M. potosina* is readily distinguished from *M. latidens* by both vegetative and fruit characters, as noted in my key to species, although the occasional fragmentary collection may superficially resemble one or the other.

MIMOSA SUBINERMIS (S. Wats.) B.L. Turner, *comb. nov.* BASIONYM: *Schrankia subinermis* S. Wats., Proc. Amer. Acad. Arts 17:350. 1882. TYPE: MEXICO. Coahuila: "Mountains 24 mi northeast by north from Monclova", Sep 1880, *E. Palmer 302* (HOLOTYPE: GH; Isotype: NY!). The quoted locality is taken from label data on the isotype (NY).

Leptoglottis nelsonii Britton & Rose. *Mimosa quadrivalvis* L. var. *nelsonii* (Britton & Rose) Barneby.

The large leaves with usually more numerous pinnae and its elongate fruits readily distinguish *Mimosa subinermis* from *M. potosina*. Barneby placed the older specific name, *Schrankia subinermis*, as questionably synonymous with his *Mimosa quadrivalvis* var. *nelsonii*, the type of the latter from Sabinas, Coahuila, only a short distance to the north of the type locality for *M. subinermis*. The isotype of *M. subinermis* is a late-fruiting fragmentary specimen with only 1 pair of pinnae on upper leaves, as noted by Barneby, otherwise all characters are similar to those of type material of *Leptoglottis nelsonii* (Isotype: NY!). At least I have but little doubt that the latter name is properly synonymized under *M. subinermis*, and I believe field studies (suggested as needed by Barneby) will bear this out.

Mimosa subinermis is essentially allopatric with the closely related *M. potosina* (Figure 2) but I find no suggestion from herbarium sheets that they might intergrade, nor does *M. subinermis* pass into the silicaceous taxa *M. latidens* and *M. occidentalis*, as might be inferred from Barneby's account. I do agree with the latter's observations that *M. subinermis* has "contributed to the amorphous ... concept of *S. latidens* proposed by Isely [1971]".

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LITERATURE CITED

Barneby, R.C. 1992. Series *Quadrivalves*, in Sensitive Censitae. Mem. New York Bot. Gard. 65:290-303.

Isely, D. 1971. Legumes of the United States: III. *Schrankia*. Sida 4:232-245.

_____. 1973. Leguminosae of the United States: 1: subfamily Mimosoideae. Mem. New York Bot. Gard. 25:1-152.

Turner, B.L. 1994. Texas species of *Schrankia* (Mimosaceae) transferred to the genus *Mimosa*. Phytologia 76:412-420.